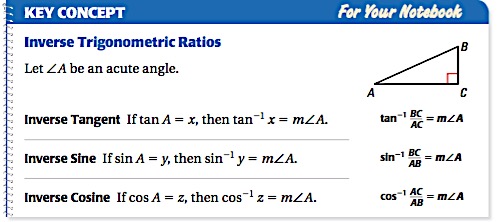
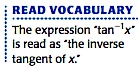
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

CW 69: Inverse Trigonometry

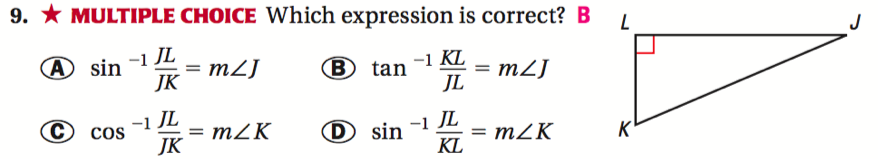
**Honors Geometry**

To solve a right triangle means to find the measures of all its sides and angles. You can solve a right triangle if you know either of the following:

* Two side lengths
* One side length and the measure of one acute angle.



|  |  |
| --- | --- |
| USING INVERSE TANGENTS Use a calculator to approximate the measure of *∠A* to the nearest tenth of a degree. | |
| 1. | 2. |
| USING INVERSE SIN AND COS Use a calculator to approximate the measure of *∠A* to the nearest tenth of a degree. | |
| 3. | **../../../Desktop/Screen%20Shot%202016-02-20%20at%203.43.27%20PM.png**4. |

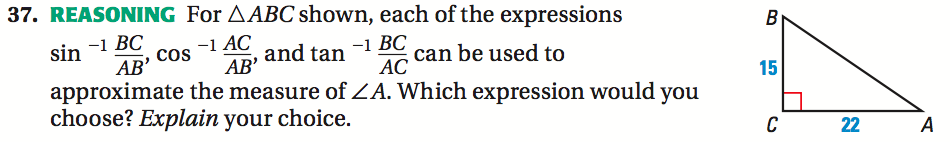
****5. Decide which of the following equations could be ued on triangle JLK below and explain why you chose your answer.  
  
A.

B.

C.

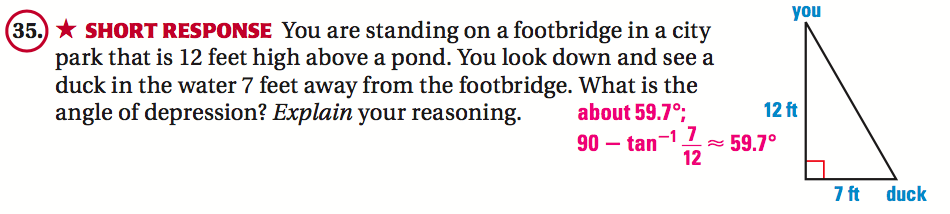
D. A.

|  |  |  |  |
| --- | --- | --- | --- |
| CALCULATOR Let ∠*A* be an acute angle in the right triangle. Approximate the measure of ∠*A* to the nearest tenth of a degree. | | | |
| 6. sin *A* = 0.5 | 7. sin *A* = 0.75 | 8. cos *A* = 0.33 | 9. cos *A* = 0.64 |
| 10. tan *A* = 1.0 | 11. tan *A* = 0.28 | 12. sin *A* = 0.19 | 13. cos *A* = 0.81 |

14.

Solve the following right triangles (find all side lengths and all angle measures).

|  |  |  |  |
| --- | --- | --- | --- |
| 15. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%204.05.20%20PM | 16. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%204.05.23%20PM | | 17.  ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%204.05.27%20PM |
| 18. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%204.05.30%20PM | | 19. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%204.05.33%20PM | |

20. You are standing on a footbirdge ina city park that is 12 feet high above a pond. You look down and see a duck in the water 7 feet away from the footbridge. What is the angle between where you look to see the duck and the height of the footbridge? *Explain* your reasoning.   
****